



Cat. No. 32-1163  
**OWNER'S MANUAL**

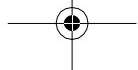
Please read before using this equipment.

# CD/Dual-Cassette Karaoke System

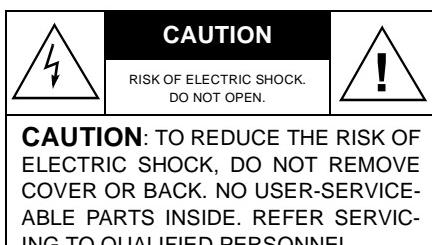
**CD+Graphics**



**OPTIMUS®**



**WARNING:** To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

This CD player is made and tested to meet exacting safety standards. It meets FCC requirements and complies with safety performance standards of the U.S. Department of Health and Human Services.

**Warnings:**

- This CD player employs a laser light beam. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.
- The use of controls, adjustments, or procedures other than those specified herein might result in hazardous radiation exposure.

**Note:** Most material on compact discs and prerecorded tapes is copyrighted. Unauthorized duplication of copyrighted material is a violation of the copyright laws of most countries and such duplication may result in fines and/or imprisonment. Note, however, that in the United States, it is not a violation of U.S. copyright laws for a consumer to use an audio recording device to duplicate musical recordings for noncommercial (personal) use.

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## FEATURES

Your Optimus CD/Dual-Cassette Karaoke System is one of the most versatile karaoke systems available. It lets you be the "star" as you sing along with your favorite recordings on a CD, a CDG (a compact disc with a graphic track), a cassette tape, or a video tape, and hear your voice with the music through the powerful built-in speaker.

The karaoke system's CDG capability is the latest advancement in karaoke technology. It lets you connect the karaoke system to a TV or monitor and read the lyrics of your favorite tunes as they scroll by in front of a still video graphic, such as a picture or drawing related to the music.

You can sing along without video graphics using special karaoke audio cassette tapes (such as the one we have included to get you started) that let you balance the volume of the original singer's voice and the music tracks. Or, you can sing along with a regular prerecorded cassette tape or CD (not supplied).

You can also connect another audio source to the karaoke system, such as a stereo VCR, and play a karaoke video cassette (not supplied).

**Note:** Additional karaoke CDs, audio cassettes, and video cassettes are available by special order through your local RadioShack store.

Plus, your karaoke system can be used as a small PA system for speaking at parties or other gatherings — just plug in the microphone and turn on the power!

Your karaoke system's features include:

**CD/CD+G Player** — lets you play regular or karaoke CDs, or special CD+Gs so you can experience digital images — the latest in karaoke fun! Plus, the player's 16 bit D/A converter and 8 times oversampling produce high quality sound.

**Digital Key Control** — lets you choose the musical key that suits your voice best so you can give your best performance.

**18-Watt Output Power** — lets you sing-along and listen through one of the biggest amps offered in a karaoke system, including a 10" woofer and 3" tweeter.

**32-Key Remote Control** — lets you control most of the system's functions from a distance.

**OSD (On Screen Display)** — displays on your TV's screen the system function (CD/CD+G, cassette, or auxiliary) currently in use.

**5 Band Frequency Equalizer** — lets you precisely adjust the tone and sound to your preference and your room's unique acoustics.

**Digital Echo Control** — lets you add an echo to the sound for a concert hall effect.

**Automatic Voice Control** — lets you replace the prerecorded original singer's voice with your voice when you use a karaoke tape, so you can sing solo.

**Dual-Cassette Decks** — let you play two cassette tapes in a row, or dub from one tape to another.

**Auto-Stop** — automatically stops a tape when it finishes playing or recording, to protect the tape and tape-handling parts.

**20-Track Programmable Memory** — lets you pace your own performance by programming up to 20 CD tracks in the order you want to hear them.

**18-Watt External Speaker Jack** — so you can connect an external speaker for stereo effects.

**Auxiliary Input Jacks** — so you can connect to another audio source, such as a stereo VCR or another CD player.

**Auxiliary Output Jacks** — for connecting another audio component, such as an equalizer/booster or a PA system.

**Automatic Search** — lets you quickly locate and play any track on the loaded CD/CD+G.

**Audible Search** — lets you quickly locate a particular section of track while it is playing.

**Intro Scan** — lets you play the first 10 seconds of each track on a CD/CD+G to help you locate a certain track.

**Repeat Play** — repeats a single track or a programmed sequence of tracks.

**Random Play** — lets you play all the tracks in random order.

**Mute** — lets you temporarily silence the sound.

**Audio Select** — lets you choose between singing along to the music with or without the original singer's voice or with a stereo effect.

**Supplied Karaoke Audio Tape and CD + G** — lets you sing along with the music and adjust the volume of the prerecorded voice and music.

**Dual Microphone Jacks** — let you use the supplied microphone and an optional microphone simultaneously to sing duets or for lead and background vocals.

**Recording** — lets you record your voice as you sing along with a tape or CD/CD+G or an external audio source connected to the system.

**Tape Speed Control** — lets you adjust the tape speed to match your voice pitch.

**Note:** The system's remote requires two AA batteries (not included).

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## CONNECTIONS

**Caution:** To avoid electrical shock, do not connect the system to AC power until all other connections are complete.

If you are connecting only one microphone, plug it into **MIC 1**. If you are adding a second microphone, plug it into **MIC 2**.

### CONNECTING MICROPHONES

The system has two microphone jacks so you can use the supplied microphone to sing along to your favorite recordings, and connect an additional microphone (not supplied) for duets or lead and background vocals.

For the best performance, the additional microphone should be a unidirectional 600-ohm dynamic microphone with a  $\frac{1}{4}$ -inch (6.35-mm) plug and an ON/OFF switch. Your local RadioShack store has a wide selection of microphones.

Before you connect a microphone, always turn **VOLUME** to **MIN** on **MIC 1**, (and **MIC 2** if you are connecting an additional microphone).

The system has built-in microphone holders on either side of the system. To use a holder, pull it down from the side of the system, and place the microphone in the holder's grip.

### CONNECTING OTHER AUDIO COMPONENTS

You can connect an external audio source or component to the karaoke system, so you can sing along with other audio formats or videos, or hear the karaoke's sound from another speaker or a PA system. To make the connection, you need optional audio patch cables (such as Cat. No. 42-2352).

## Connecting an External Audio Source for Input

You can connect another audio source, such as a stereo VCR or another CD player, so you can sing along with the audio source's sound. Connect the source's stereo audio output jacks to the system's **AUX IN R** and **L** jacks.

## Connecting an External Audio Component for Output

You can broadcast the karaoke system's sound through an external audio component such as a PA system amplifier. Connect the external audio component's audio input jacks to the karaoke system's **AUX OUT R** and **L** jacks.

**Note:** If your audio source does not have **AUX OUT R** and **L** jacks, but has only a headphone or line out jack (such as on a portable tape or CD player), use a shielded Y-adapter cord with phono jacks on each end (such as Cat. No. 42-2475). Connect the single-plug end to the audio source's headphone or line out jack, and connect the other end's two phono plugs to the system's **AUX IN R** and **L** jacks.

## Connecting an External Speaker

You can connect an external 20-watt stereo speaker with 8-ohm impedance to the system for a stereo effect. Plug the speaker's phono plug into **EXT. 8 OHM SPEAKER / RIGHT CHANNEL** on the system.

## CONNECTING TO A TV

You can connect the CD/CD+G karaoke system to a TV or monitor and see the words and images produced by a special karaoke video cassette or CD/CD+G. Plug one end of the supplied cable into **VIDEO OUT** and the other end into your TV's video in jack.

## CONNECTING POWER

When you have made all other connections, plug your system's power cord into a standard AC outlet. The power standby indicator lights (see "Turning the System On/Off" on Page 14).

**Note:** For TVs that do not have an audio/video input jack, use a video RF modulator (such as Cat. No. 15-1283). Connect the RF modulator to **VIDEO OUT** and to the TV's 75-Ohm VHF input terminal, following the instructions in the modulator's owner's manual.

**Caution:** The supplied power cord has a polarized plug that fits into the outlet only one way. If the plug does not fit properly, turn it over and try again. Do not force it.

## INSTALLING THE REMOTE CONTROL'S BATTERIES

Your karaoke system's remote control requires two AA batteries (not supplied) for power. We recommend alkaline batteries, such as Cat. No. 23-552, for the best performance and longest life.

**Cautions:**

- Use only fresh batteries of the required size and recommended type.
  - Do not mix old and new batteries, different types of batteries (standard, alkaline, or rechargeable), or rechargeable batteries of different capacities.
1. Press the arrow on the battery compartment cover and slide the cover off.

**Cautions:**

- Dispose of old batteries promptly and properly. Do not burn or bury them.
- Always remove old or weak batteries. Batteries can leak chemicals that can destroy electronic parts.
- If you do not plan to use the remote control for a month or more, remove the batteries. Batteries can leak chemicals that can destroy electronic parts.

2. Install the batteries in the compartment as indicated by the polarity symbols (+ and -) marked inside.

3. Replace the cover.

You can use the remote control from up to 23 feet (7 meters) away from the system. If the remote operates erratically or not at all, replace both batteries.

## SINGING ALONG/QUICK START

The instructions in this section provide a quick reference to help you get started singing along with your karaoke CD/CD+G system. For details on using the system's various features such as the CD/CD+G player, cassette decks, or optional sound sources and components, see that feature's section in this Owner's Manual.

### SINGING WITH A CD/ CD+G OR A CASSETTE TAPE

Follow these steps to sing along with a CD/CD+G or a cassette tape (such as the ones supplied).

1. Press **POWER** (if necessary) to turn on the system. The **POWER** standby indicator turns off.
2. Load a CD/CD+G in the CD compartment. Or, if you want to sing along with a prerecorded tape, load it in TAPE 1 or TAPE 2.

3. Set **FUNCTION SELECTOR** to **CD/CDG** or **TAPE**.

4. Press **MODE** on the remote control so **KARAOKE** appears on the display.

**Note:** If you want to use the system to play music without singing along, press **MODE** on the remote control to display **NORMAL**. Then follow the steps for playing a CD/CD+G or cassette. See "Playing a CD/CD+G" on Page 17 or "Playing a Tape" on Page 23.

5. Repeatedly press **AUDIO** on the system or **AUDIO SELECT** on the remote to set the system to the desired sound setting. The setting appears on the display.

- Set it to **LEFT**, to enjoy the music without the original singer's voice, so you can sing alone.
  - Set it to **RIGHT**, to enjoy both the original voice and music with low volume. You can sing following along with the original voice.
  - Set it to **V.CANCEL**, to enjoy both the music and original singer's voice. Whenever you sing along, the original singer's voice is cancelled.
  - Set it to **LEFT** and **RIGHT**, to enjoy a stereo effect with the music.
6. Press **PLAY/PAUSE** (**▶/■**), or **PLAY** **▶** on the tape deck you are using, to start play.
  7. Adjust the sound with **MASTER VOLUME** and the 5 band frequency equalizer. See "Adjusting the Sound" on Page 14 and "Using the 5 Band Equalizer" on Page 15.
  8. Set each connected microphone's **ON/OFF** switch to **ON**. Sing directly into the microphone along with the music.
  9. Use **MIC 1 VOLUME** and/or **MIC 2 VOLUME** to adjust the volume of each microphone.
  10. Adjust **ECHO** and **KEY CONTROL** for the desired reverberation and pitch. See "Adjusting the Sound" on Page 14.
  11. Adjust **TAPE SPEED** (if you are playing a tape). See "Adjusting the Sound" on Page 14.
  12. If you are using a karaoke cassette tape, adjust **AUTO VOICE CONTROL** for the desired effect. See "Adjusting the Sound" on Page 14.
- Note:** With a regular (non-karaoke) prerecorded cassette tape, you cannot adjust the volume of the prerecorded original singer's voice in relation to the music.
13. When you finish, press **STOP** (**■**) on the CD/CD+G. Then press **OPEN/CLOSE** (**▲**) to open the compartment door and remove the CD.
  14. To stop a tape, press **STOP/EJECT** **■/▲** on the deck you are using. Press **STOP/EJECT** **■/▲** again to open the cassette compartment door and remove the tape.
  15. Set each microphone's **ON/OFF** switch to **OFF**, then press **POWER** to turn off the system. The **POWER** standby indicator lights.

## WITH ANOTHER AUDIO SOURCE

If you connect another audio source, follow these steps to sing along with that audio source.

1. Set **FUNCTION SELECTOR** to **AUX**.
2. Press **POWER** to turn on the system.  
The **POWER** standby indicator turns off.
3. Turn on the audio source.
4. Adjust the sound with the controls explained in "Adjusting the Sound" on Page 14.
5. Set each connected microphone's **ON/OFF** switch to **ON**. Sing directly into the microphone along with the music.
6. Use **MIC 1 VOLUME** and/or **MIC 2 VOLUME** to adjust your voice's volume.
7. When you finish, set each microphone's **ON/OFF** switch to **OFF**, press **POWER** to turn off the system, then turn off the audio source.

## THROUGH ANOTHER AUDIO COMPONENT

If you connected another audio component, follow the steps in "With Another Audio Source" so you can hear your voice and music through another component. Except in Step 3, turn on the audio component, and be sure to turn off the component (Step 7) when you finish.

## SYSTEM OPERATION

### TURNING THE SYSTEM ON/OFF

To turn on the system, press **POWER**. The POWER standby indicator turns off.

**TAPE SPEED** — To slow down or speed up the pace of the music as you sing along, turn **TAPE SPEED** toward **LOW** or **HIGH**. For normal tape speed, leave it set to the middle position.

To turn off the system, press **POWER**. The POWER standby indicator lights.

### ADJUSTING THE SOUND

Use these controls to get the system's sound just right.

**MASTER VOLUME** — Control the volume from the system's speaker by turning and holding **MASTER VOLUME** toward **DOWN** or **UP**. Release **MASTER VOLUME** when you reach the volume you want. The volume remains set until you re-adjust it or shut off the system.

**AUTO VOICE CONTROL** — While you play a karaoke audio cassette tape, you can use **AUTO VOICE CONTROL** to replace the prerecorded voice with your voice. When you stop singing into the microphone, the prerecorded singer's voice returns. To turn on voice control, turn **AUTO VOICE CONTROL** clockwise until it clicks. Then adjust it toward **LOW** if you have a loud voice, or toward **HIGH** if you have a soft voice.

To turn off the voice control when you finish using it, turn **AUTO VOICE CONTROL** towards **LOW** until you hear it click.

**ECHO** — You can adjust **ECHO** to add an echo effect to your voice while you sing. Turn and hold **ECHO** toward **DOWN** or **UP** for the desired effect and release. **ECHO** remains set until you re-adjust it or switch out of the karaoke mode.

- **1 kHz** — mid-range frequency where the ear is most sensitive (low vocals)
- **3.3 kHz** — mid-range high frequencies (high vocals)
- **10 kHz** — high-frequency sounds (cymbals, flutes, and violins)

Slide the control up to boost the level or down to reduce it. If you set the control to the center position (**0**), the frequency is unchanged.

**KEY CONTROL** — To adjust the musical key coming from your system, as you sing along to better match your own voice's key, turn and hold **KEY CONTROL** toward **DOWN** for a lower key or **UP** for a higher key. Release the knob when you hear the key you want. **KEY CONTROL** remains set until you re-adjust it or switch out of the karaoke mode.

## Using Mute

Press **MUTE** on the remote control to temporarily silence the sound. **MUTE** flashes on the display and the MUTE indicator lights in the Function Selector box located to the left of the display. Press **MUTE** again to restore sound.

## Using the 5 Band Equalizer

Use the 5 band frequency equalizer to customize the sound. Each of the five controls lets you adjust the sound level in a specific frequency range.

- **120 Hz** — low-bass range (bass drums); reduces rumble or other low-frequency noise
- **300 Hz** — mid-range low frequencies (organ notes)

## CD/CD+G PLAYER OPERATION

### USING THE REMOTE CONTROL

The remote control makes it easy to use the karaoke system while playing a CD/CD+G. All of the buttons that operate the CD/CD+G player on the system are duplicated on the remote. Plus, **AUDIO SELECT, INTRO, RANDOM, REMAIN** and **MUTE** are only on the remote.

To use the remote control, point it toward **REMOTE SENSOR** on the system and press the buttons.

#### Notes:

- Make sure you have a clear path between the remote control and the sensor.
- Weak batteries or direct sunlight on the remote sensor reduce the remote control's operating range.

## PLAYING A CD/CD+G

1. Press **POWER** to turn on the system. The POWER standby indicator turns off.
2. Set **FUNCTION SELECTOR** to **CD/CDG**. The CD/CD+G indicator lights.
3. Press **OPEN/CLOSE** ( $\Delta$ ) to open the CD/CD+G compartment.
4. Place a CD/CD+G in the compartment tray over the center hub, label side up.

5. Press **OPEN/CLOSE** again to close the CD/CD+G compartment. You see the CD/CD+G's total number of tracks and total playing time.

6. If **KARAOKE** appears on the display, press **MODE** on the remote control to display **NORMAL**.
7. Press **PLAY/PAUSE** ( $\triangleright/\blacksquare$ ). The CD/CD+G begins to play from Track 1 and the track's elapsed play time appears.

**Note:** While a CD/CD+G is playing, press **REMAIN** on the remote control to see the remaining play time of the current disc. **REMAIN** appears. Press **REMAIN** again to return to the elapsed time display.

8. Adjust the sound with the controls explained in "Adjusting the Sound" on Page 14.

**Note:** To sing along see "Singing Along/Quick Start" on Page 11.

9. The system automatically stops play at the end of the CD/CD+G's last track. To stop it sooner press **STOP** ( $\blacksquare$ ). The CD/CD+G's total number of tracks and playing time appear.

### Notes:

- To temporarily stop play, press **PLAY/PAUSE** (■), and the track number appear and the elapsed time stops and flashes. To resume play, press **PLAY/PAUSE** again.
- During playback, if the system is subjected to a sudden shock or jolt, the speed of rotation might change, or some noise might be produced. This is not a malfunction.
- To go directly to a specific track, press the number button on the remote control corresponding to the number of the track. If the number of the track is over 10, press -- first, then press the two number buttons on the remote corresponding to the two-digit number track.

If a CD/CD+G is playing:

- Press **SEARCH** (◀) once to skip back to the beginning of the current track.
- Repeatedly press **SEARCH** (◀) to search backward to the beginning of the desired track.
- Repeatedly press **SEARCH** (▶) to search forward to the beginning of the desired track.

If the CD/CD+G is stopped or paused, repeatedly press **SEARCH** (◀) or (▶) until the system displays the number of the track you want to play, then press **PLAY/PAUSE** (▶/■). The CD/CD+G player starts playing the selected track.

## SPECIAL CD/CD+G PLAYER FEATURES

### Automatic Search

The automatic search feature lets you quickly locate the beginning of any track on a CD/CD+G, including the track currently playing. You can use automatic search when a CD/CD+G is playing or stopped.

### Audible Search

Hold down **SEARCH** (◀) or (▶) to search rapidly forward or backward during play. The CD/CD+G plays rapidly, and you hear the sound at a high speed and low volume.

Release the button to resume normal play.

## Intro Scan

You can set the system to play the first 10 seconds of each track on the CD/CD+G so you can quickly find the one you want.

To begin scanning, press **INTRO**. **INTRO** appears on the display and the CD/CD+G player play the first 10 seconds of each track, beginning with the first track, then stops.

You can also use repeat play and search during intro play.

To cancel intro play during or after play, press **INTRO**. If you cancel INTRO scan during play, the CD/CD+G player begins normal play.

## Repeat Play

You can repeat a single track, all the tracks on a CD/CD+G, or an entire programmed sequence. See "Programmed Play" on Page 20.

To continuously repeat a single track, press **REPEAT** once while the desired track is playing. **REPEAT [1]** appears.

To continuously repeat all tracks on the CD/CD+G, press **REPEAT**, **REPEAT ALL** appears.

To repeat a programmed sequence, hold down **REPEAT** until **REPEAT ALL** appears with **PROG** on the display.

To cancel repeat play during or after play, press **REPEAT**, **REPEAT** disappears. If you cancel repeat play during play, the CD/CD+G player resumes normal play.

## Random Play

To set the system to play all tracks on a loaded CD/CD+G in random order before or during play press **RANDOM**. **RANDOM** and the first randomly selected track number appear. Press **PLAY/PAUSE**, **[■]** briefly flashes, then the track begins to play and its elapsed play time appears. The system plays all tracks in random order, then automatically stops.

### Notes:

- To replay the current track, press **SEARCH** (**◀◀**).
- To play the next random track, press **SEARCH** (**▶▶**).

To stop the CD player at any time during random play, press **STOP**. The CD/CD+G's total number of tracks and playing time appear. When you press **PLAY/PAUSE** again, random play resumes.

To cancel random play and resume normal play, press **RANDOM** again. **RANDOM** disappears and the CD/CD+G player resumes normal play.

## PROGRAMMED PLAY

You can program the CD/CD+G player during normal or karaoke mode to play up to 20 tracks in any order you choose, and you can program the same track to play more than once.

### Programming and Playing a Sequence of Tracks.

1. Repeatedly press **STOP** (**■**) until the system displays the total number of tracks and the total playing time.
2. Press **PROGRAM**.

**PROG** flashes at the top of the display along with the track number. The program number also appears.

**Note:** **PROG** remains on the top left corner of the display until you erase the programmed sequence.

3. Press **SEARCH** (**◀◀**) or (**▶▶**) to select the desired track.

4. Press **PROGRAM** to store the selected track. The cumulative time from the programmed tracks appears, while **[PROG]** and the track number continue to flash.

7. Programmed play automatically stops at the end of the last programmed track. To stop the CD/CD+G player at any time during programmed play, press **STOP**. The CD/CD+G's total number of tracks and playing time appear.

## Reviewing/Replacing a Programmed Sequence

While play is stopped, repeatedly press **PROGRAM** to review the programmed sequence.

To replace a programmed track, press **PROGRAM** until the position number of the track you want to replace appears. Then repeat Steps 3 and 4 to select and store the new track.

## Erasing a Programmed Sequence

You can do any of the following to erase a programmed sequence:

- Press **OPEN/CLOSE** ( $\Delta$ ) before or after programmed play.
- Press **POWER**. The **POWER** standby indicator lights.

5. Repeat Steps 3 and 4 to program up to 20 tracks.

**Note:** You cannot store more than 20 tracks. If you try to program a 21st track, the system does not store it and the total number of tracks and the total playing time appear on the display.

6. Press **PLAY/PAUSE** ( $\triangleright/\text{II}$ ) to play the programmed tracks. The first track number appears on the display with the elapsed time of the track in play.

### Notes:

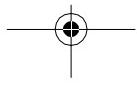
- You cannot use random play to play a programmed sequence.
- You can repeat or search through programmed tracks. To repeat the programmed sequence, see "Repeat Play" on Page 19.



## CD/CD+G CARE TIPS

Although a CD/CD+G is very durable, you should handle it with care. We recommend the following precautions:

- Keep the CD/CD+G in its protective case or sleeve when you are not playing it.
- Keep the CD/CD+G clean. Your local RadioShack store sells a suitable CD cleaner kit.
- Do not write on either side of the CD/CD+G, particularly the non-label side.
- Do not store CD/CD+Gs in high-temperature, high-humidity locations. They might warp.
- Keep CD/CD+Gs dry. A water drop can act as a lens and affect the laser beam's focus.
- Always handle a CD/CD+G by the edges to avoid fingerprints. Fingerprints and scratches on the CD/CD+G's surface can prevent the laser beam from correctly reading the digital information.
- If a CD/CD+G skips during play, it might be scratched. Your local RadioShack store sells a Scratch'n Fix kit (Cat. No. 42-127) that might stop the skip. Also, see "Troubleshooting" on Page 30.



## CASSETTE DECK OPERATION

You can play a cassette tape in either cassette deck, and you can record tapes in TAPE 1.

**Note:** You cannot operate the cassette deck using the remote control.

3. Load the cassette tape with its open edge facing down, the side you want to play or record on facing out, and the full reel to the left.

### LOADING A TAPE

1. Take up any slack in the tape by turning the cassette's hub with a pencil or your finger. If you do not remove excess slack, the tape might become tangled in the record/play-back mechanism. Avoid touching the tape.

4. Close the compartment door.

### PLAYING A TAPE

You can play a cassette tape in either TAPE 1 or TAPE 2, or you can load cassette tapes in both decks and play one side of each consecutively.

**Warning:** To protect your hearing, set **MASTER VOLUME** to **MIN** before you play a cassette tape.

2. Press **STOP/EJECT** ■/▲ to open the cassette compartment.

### Normal Play

Follow these steps to play a cassette tape in TAPE 1 or TAPE 2.

1. Load a cassette tape in TAPE 1 or TAPE 2.
2. Press **POWER** (if necessary) to turn on the system. The **POWER** standby indicator turns off.

3. Set **FUNCTION SELECTOR** to **TAPE**.

- To rapidly wind the tape forward or backward, press **FAST-F** ► or **REWIND** ◀. Press **STOP/EJECT** ■/▲ when you reach the desired section.

4. Press **PLAY** ► on the deck where the tape is loaded.

5. Adjust the sound with the controls explained in "Adjusting the Sound" on Page 14.

6. Press **STOP/EJECT** ■/▲ to stop the tape. Press **STOP/EJECT** ■/▲ again to open the cassette compartment, then remove the cassette tape.

Turn the tape over and press **PLAY** ► to play the other side.

**Notes:**

- To temporarily stop play, press **PAUSE** ■■. Press **PAUSE** ■■ again to resume play.

## Consecutive Play

Follow these steps to play one side of a tape loaded in TAPE 2, then play one side of tape loaded in TAPE 1.

1. Load a cassette tape in TAPE 1 and TAPE 2.
2. Press **POWER** (if necessary) to turn on the system. The **POWER** standby indicator turns off.
3. Set **FUNCTION SELECTOR** to **TAPE**.

4. Press **PLAY** ► on TAPE 2.

5. Press **PAUSE** ■■ then **PLAY** ► on TAPE 1.

The tape in TAPE 2 plays to the side's end. Then PAUSE releases on TAPE 1 and it plays to its side's end.

## TAPE CARE TIPS

### Preventing Accidental Erasure

Cassette tapes have two erase-protection tabs — one for each side. To protect a recording from being accidentally recorded over or erased, use a screwdriver to remove one or both of the cassette tape's erase-protection tabs.

If you want to record on a tape side after you have removed the erase-protection tab, place a piece of strong plastic tape over that side's erase-protection hole.

#### Notes:

- Be sure you cover only the hole that was originally covered by the erase-protection tab.
- Removing the erase-protection tabs does not prevent a bulk eraser from erasing a cassette tape.

### Erasing a Cassette Tape

If you no longer want a recording, you can record over it or erase it.

To erase a previously recorded section of a tape, simply record over it.

To erase the entire cassette tape, record silence by setting **FUNCTION SELECTOR** to **TAPE** and recording with no tape in TAPE 2.

You can quickly erase both sides of a cassette tape using a bulk tape eraser (such as Cat. No. 44-232), available at your local RadioShack store.

### Cleaning the Tape-Handling Parts

Dirt, dust or particles of the tape's coating can accumulate on the tape heads and other parts that the tape touches. This can greatly reduce the performance of the cassette player. After every 20 hours of tape player operation, use a cassette deck cleaning kit (Cat. No. 44-1202) or follow these steps to clean the tape-handling parts.

1. Disconnect the AC power cord.
2. Open the cassette compartment doors on TAPE 1 and TAPE 2.
3. Press **PLAY ▶** on TAPE 1 and TAPE 2 to expose the tape-handling parts.

4. Use a cotton swab dipped in denatured alcohol or tape head cleaning solution to clean the record/play heads, pinch rollers, capstans, tape guides, and erase heads.

**Caution:** Be careful not to damage the cassette when tapping it. Do not touch the exposed tape or allow any sharp objects near the cassette.

5. When you finish cleaning, press **STOP/EJECT** ■/▲ on TAPE 1 and TAPE 2 and close the cassette compartment doors. Then reconnect power.

Your local RadioShack store sells a full line of cassette deck cleaning supplies.

### **Restoring Tape Tension and Sound Quality**

After you play a cassette tape several times, the tape might become tightly wound on the reels. This can cause playback sound quality to deteriorate.

To restore the sound quality, fast-forward the tape from the beginning to the end of one side, then completely rewind it. Then loosen the tape reels by gently tapping each side of the cassette's outer shell on a flat surface.

## USING OPTIONAL COMPONENTS

**Warning:** To protect your hearing and prevent damage to the karaoke system, an audio source and/or an audio component, always set their volume controls to the lowest settings before turning them on.

### LISTENING TO ANOTHER AUDIO SOURCE

If you connected another audio source, follow these steps to listen to that source through your karaoke system.

1. Set **FUNCTION SELECTOR** to **AUX**.

2. Press **POWER** to turn on the system. The **POWER** standby indicator turns off.
3. Turn on the audio source.
4. Adjust the sound with the controls explained in "Adjusting the Sound" on Page 14.
5. To turn off the system, press **POWER**. The **POWER** standby indicator lights. Then turn off the audio source.

### LISTENING THROUGH ANOTHER AUDIO COMPONENT

If you connected an audio component (such as PA system) follow these steps to listen to the karaoke system's sound through that component.

1. Set **FUNCTION SELECTOR** to **AUX**.

2. Press **POWER** to turn on the system. The **POWER** standby indicator turns off.
3. Turn on the audio component.
4. Play a cassette, CD, or CD+G in the karaoke system.
5. Adjust the sound with the controls explained in "Adjusting the Sound" on Page 14.
6. To turn off the system, press **POWER**. The **POWER** standby indicator lights. Then turn off the audio component.

## RECORDING A CASSETTE TAPE

You can become a recording star! The system lets you record your voice on a blank or reusable tape as you sing along with a special karaoke cassette tape, video tape, CD/CD+G or other audio source. You can also record from an external audio source, or dub from one cassette tape to another.

### Recording Tips:

- Tape quality greatly affects the quality of the recording. We recommend RadioShack Supertape Extended Range or Low-Noise Type 1 tape. We do not recommend long-play cassette tapes, such as C-120s, because they are thin and can easily tangle in the cassette mechanism. For low-noise, wide-range recordings, use normal-bias tape.
- Before recording, be sure the tape you are using has its erase-protection tabs in place. See "Preventing Accidental Erasure" on Page 25.
- Recording automatically stops when the tape in TAPE 1 reaches the end. To record on the other side, turn over the tape.

## RECORDING YOUR VOICE WITH MUSIC

Follow these steps to record your voice along with music from a tape in TAPE 2, a CD/CD+G, or an audio source connected to the system's **AUX INPUT** jacks.

1. Load a blank tape, or one that you want to record over, into TAPE 1, with the side you want to record on facing out, and the full reel to the left.
2. Follow Steps 1–11 in "Singing with a Cassette Tape or a CD" on Page 11 or Steps 1–6 in "With Another Audio Source." on Page 12.
3. Press **RECORD ●** on TAPE 1 to begin recording. **RECORD ●** and **PLAY ▶** both lock down.

**Note:** Press **PAUSE ■■** on TAPE 1 to temporarily stop recording. Press **PAUSE ■■** again to resume recording.

4. Press **STOP/EJECT ■/▲** on TAPE 1 to stop recording. **RECORD ●** and **PLAY ▶** release.
5. Press **STOP/EJECT ■/▲** on TAPE 2 or stop the audio source.

## DUBBING A CASSETTE TAPE

You can dub (copy) any cassette tape on the karaoke system's dual cassette decks using a source tape with the music or sound you want to copy and a blank or reusable tape to record on.

Follow these steps to dub from one cassette tape to another.

1. Set **FUNCTION SELECTOR** to **TAPE**.
2. Load the cassette you want to copy into **TAPE 2** with the side you want to record from facing out.
3. Load a blank cassette (or one you want to record over) into **TAPE 1** with the side you want to record on facing out.
4. Press **PAUSE ■** then **RECORD ●** on **TAPE 1**. Pause then **RECORD ●** and **PLAY ▶** both lock down.
5. Press **PLAY ▶** on **TAPE 2** to begin recording. **PAUSE ■** on **TAPE 1** automatically releases.

**Note:** You can listen to the tape playing in **TAPE 2** as you copy it. Set **MASTER VOLUME** to a comfortable level. The volume setting does not affect the recording level.

6. Press **STOP/EJECT □/▲** on **TAPE 1** to stop recording. **RECORD ●** and **PLAY ▶** release.
7. Press **STOP/EJECT □/▲** on **TAPE 2** to stop playing the tape.

## TROUBLESHOOTING

If you have problems operating your CD/Dual-Cassette Karaoke System, try these suggestions. If you still have problems, contact your local RadioShack store for assistance.

Problem	Possible Cause	Solution
The karaoke system does not work.	No power	Make sure the power cord is properly plugged into an AC outlet.
	Power is on standby.	Make sure the POWER standby indicator is off.
A CD is loaded, but the CD/CD+G player does not start.	The CD/CD+G is loaded upside-down.	Reload the CD/CD+G, label side up.
	The CD/CD+G is dirty or defective.	Clean the CD/CD+G and reload it, or try a different CD/CD+G. See "Troubleshooting" on Page 30.
The CD/CD+G's sound skips.	The CD/CD+G is dirty or defective.	Clean the CD/CD+G and reload it, or try a different CD/CD+G. See "Troubleshooting" on Page 30.
	Moisture has condensed on the pickup lens.	Unplug the system and wait 1 hour for the moisture to evaporate.

## CARE AND MAINTENANCE

Your Optimus CD/Dual-Cassette Karaoke System is an example of superior design and craftsmanship. The following suggestions will help you care for your karaoke system so you can enjoy it for years.



Keep the karaoke system dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Use and store the karaoke system and the remote control only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.



Keep the karaoke system away from dust and dirt, which can cause premature wear of parts.



Handle the karaoke system gently and carefully. Dropping it can damage circuit boards and cases and can cause the karaoke system to work improperly.



Use only fresh batteries of the required size and recommended type. Batteries can leak chemicals that damage your karaoke system's electronic parts.



Wipe the karaoke system with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the karaoke system.

Modifying or tampering with the karaoke system's internal components can cause a malfunction and might invalidate its warranty. If your karaoke system is not performing as it should, take it to your local RadioShack store for assistance.

## THE FCC WANTS YOU TO KNOW

This music system complies with the limits for a Class B digital device as specified in Part 15 of *FCC Rules*. These limits provide reasonable protection against radio and TV interference in a residential area. However, your system might cause TV or radio interference even when it is operating properly. To eliminate interference, you can try one or more of the following corrective measures:

- reorient or relocate the receiving antenna
- increase the distance between the system and the radio or TV
- use outlets on different electrical circuits for the system and the radio or TV

Consult your local RadioShack store if the problem still exists.

You must use shielded interface cables with this system.

## SPECIFICATIONS

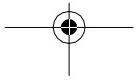
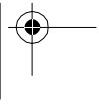
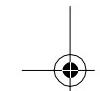
Power Output (at 10% THD) .....	18 Watts per Channel
Equalizer .....	120 Hz ±10 dB 300 Hz ±10 dB 1 kHz ±10 dB 3.3 kHz ±10 dB 10 kHz ±10 dB
Track System .....	4 Track, Two Channel Stereo
Tape Speed .....	17/8 ips
Recording System .....	AC Bias
Erasing System .....	AC
Wow and Flutter (WRMS) .....	Less Than 0.35%
Record/Play Frequency Response (at ±3 dB) .....	125–8000 Hz
Signal-To-Noise .....	40–60 dB
Dynamic Range .....	More Than 80 dB
Speaker .....	10-Inch Woofer/3-Inch Tweeter (8 Ohms)
Microphone (Monaural) Impedance .....	600 Ohm
Power Source .....	AC 120V, 60 Hz, 95 W
Dimensions (HWD) .....	15 × 28 × 9½ Inches (381 × 711 × 242 mm)
Weight .....	44 lb 1.6 oz (20 kg)
Included Accessories .....	Microphone, Karaoke Cassette Tape RCA Plug Cable, Remote Control, CDG Karaoke Disc

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.



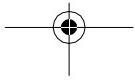
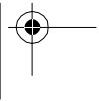
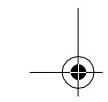
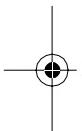
## NOTES

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### Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, Dept. W, 100 Throckmorton St., Suite 600, Fort Worth, TX 76102

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